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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,570	04/09/2004	Chanh Le	42P14746D	1889

7590 12/09/2005

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EXAMINER	
SUAREZ, FELIX E	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
V **Office Action Summary**	10/821,570	LE ET AL.	
	Examiner	Art Unit	
	Felix E. Suarez	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8,9,11 and 12* is/are rejected.

7)☒ Claim(s) *7 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6, 8, 9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being unpatentable over Limon, Jr. et al. (U.S. Patent No. 6,453,435).

With respect to claim 1, Limon, Jr. et al. (hereafter Limon, Jr.) teaches a method for testing a computer system board, comprising:

loading the computer system board into a test apparatus (see col. 4, lines 35-42 and col. 12, lines 46-65);

automatically coupling a connector to provide power input to the computer system board via the test apparatus (see col. 5, line 60 to col. 6 line 12);

automatically performing a plurality of computer system board tests (see col. 6, lines 49-57); and

storing results of the automatic testing (see col. 16 line 60 to col. 17 line 4).

With respect to claims 2 and 11, Limon, Jr. further teaches comprising:

determining a type of the computer system board (see col. 6, lines 36-48 and col. 10, lines 19-31) ; and

automatically supplying the computer system board with a corresponding set of power inputs during the automatic testing operations (see col. 5, lines 29-41 and col. 5, line 60 to col. 6 line 12).

With respect to claim 3, Limon, Jr. further teaches comprising sequencing a plurality of power input signals in response to corresponding power command signals provided by the computer system board (see col. 13, lines 41-50).

With respect to claim 6, Limon, Jr. further teaches comprising automatically inserting one or more memory devices into corresponding connectors on the computer system board (see col. 4, lines 52-67).

With respect to claim 8, Limon, Jr. further teaches comprising automatically operatively coupling a peripheral card to an expansion slot on the computer system board (see col. 5, lines 23-29).

With respect to claim 9, Limon, Jr. further teaches comprising automatically connecting test electronics to at least one input/output (I/O) port connector (see col. 5, lines 26-28).

With respect to claim 12, Limon, Jr. further teaches that the type of computer system board is determined by performing the operations of:

storing data in a database relating respective serial numbers of a plurality of computer system boards with corresponding computer system board types (see col. 12, lines 43-62);

scanning a serial number bar code on a given computer system board that is to be tested (see col. 12, lines 18-27); and

determining the system board type of that computer system board via a lookup of the database using the serial number that was scanned (see col. 12, lines 46-62).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Limon, Jr. et al. (U.S. Patent No. 6,453,435) in view of Neal (U.S. Patent No 4,550,406).

With respect to claim 4, Limon, Jr. et al. (hereafter Limon, Jr.) further teaches all the features of the claimed invention except that Limon, Jr. does not teach that the plurality of system board tests include testing the computer system board for short circuits.

But Neal teaches an automatic test program list generator for generating a test program list for a printed wiring board. The purpose of the test program list is to test loaded production, printed wiring boards on an in-circuit tester for shorts, opens, missing components, wrong components, and misplaced or improperly oriented components and give confidence that the board is manufactured correctly (see Neal; col. 7, lines 13-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Limon, Jr. to include short circuit testing as taught by Neal, because the short circuit testing of Neal can be performed on a printed wiring boards, or in a computer system board, as desired.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Limon, Jr. et al. (U.S. Patent No. 6,453,435) in view of Reynolds et al. (U.S. Patent No. 6,459,805).

With respect to claim 5, Limon, Jr. et al. (hereafter Limon, Jr.) further teaches all the features of the claimed invention except that Limon, Jr. does not teach that the plurality of system board tests include testing a video subsystem of the computer system board.

But Reynolds et al. (hereafter Reynolds) teaches in a digital imaging microscopy system that, the system is controlled by a computer and the computer comprises an APC-Vision imaging board used for video capture with output to a monochrome monitor (see Reynolds; col. 3 line 66 to col. 4 line 9).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Limon, Jr. to include an imaging board used for video capture as taught by Reynolds, because such a video board would have allowed a test operation of a video subsystem of the computer system board.

Allowable Subject Matter

4. Claims 7 and 10, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7, would be allowable over the prior art for at least the reason that the prior art fail to teach or suggest:

automatically inserting a microprocessor into a corresponding connector on the computer system board.

Claim 10 would be allowable over the prior art for at least the reason that the prior art fail to teach or suggest:

wherein said at least one I/O port connector comprises at least two I/O port connectors, each having a different connection axis.

Response to Arguments

6. This action is responsive to papers filed 22 July 2005.

7. Applicant's arguments filed 22 July 2005 have been fully considered but they are not persuasive respect to independent claim 1. The Examiner has thoroughly reviewed applicant arguments, but believes the cited references to reasonably and properly meet the claimed limitations.

The invention is a universal automated circuit board tester.

Applicant's primary argument is that Limon, Jr. et al. (hereafter Limon, Jr.) do not teach "a method for testing a computer system board, comprising:

automatically coupling a connector to provide power input to the computer system board via the test apparatus".

But Limon, Jr. teaches that, "The test station includes a power supply, which is coupled to the General Purpose Interface Bus (GPIB), so that the power supply can be controlled by workstation through the GPIB bus. The power supply has outputs which are coupled to the tester connector, so that the power supply can supply power to the Unit Under Test (UUT)", (see Limon, Jr.; col. 5, lines 60-65).

The Examiner considers that, the Limon, Jr. station is capable to provide power supply to an UUT, through a coupled tester connector.

The Examiner considers also, that the coupled between the power supply and the tester connector, is a self-operating mechanism or an automaton mechanism capable to provide power to an UUT, through a coupled tester connector.

8. The Examiner rejects claims 1-6, 8, 9, 11 and 12, in view of the newly discovered references to Limon, Jr. et al. (U.S. Patent No. 6,453,435), Neal (U. S. Patent No. 4,550,406) and Reynolds et al. (U.S. Patent No. 6,459,805).

Conclusion

Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin [U.S. Patent No. 6,754,763] describes an input/output I/O, or read/write registers.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix Suarez, whose telephone number is (571) 272-2223. The examiner can normally be reached on weekdays from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular communications and for After Final communications.

December 1, 2005

F.S.

MARC S. HOFF
SUPERVISORY PATENT EXAMINER
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